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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,759	08/31/2001	Junko Ami	213504US2RD	9942

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EXAMINER	
WIN, AUNG T	
ART UNIT	PAPER NUMBER
2617	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/29/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/29/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/942,759	AMI ET AL.	
	Examiner	Art Unit	
	Aung T. Win	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,19 and 21* is/are pending in the application.

4a) Of the above claim(s) *13-18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,19 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 12/12/2006 have been fully considered but they are not persuasive. Applicant argues that Prior art Callaway fails to teach transmission of reception establishing information from a transmission a transmission device to the reception information providing device. Examiner disagrees. As clearly stated in office action, 1st slave device transmits and requests the master device reception establishing information such as frequency preferred to communicate to 2nd slave device [Column 3, Line 50-52]. Therefore, the master device must transmit such information (such as frequency and modulation information) to 2nd slave device in order to synchronize with 1st slave device for further communication.

Applicant also argues that Callaway does not suggest reception device receives data from transmission device without connecting each other according to Bluetooth 1.0 specification. Examiner disagrees. Callway teaches such feature because slave devices communicate each other in parked modes i.e., without using active member address according to Bluetooth 1.0 specification but still being able to communicate with each other directly unlike Bluetooth 1.0 specification. Therefore, applicant's arguments are not persuasive and rejection as written stands.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-6, 11 & 12, 19 & 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Callaway (US006275500B1).

1.1 Regarding Claims 1 and 21, Callaway discloses a broadcast type service system and method [(Bluetooth 1.0 system; Background) (Column 5, Line 10-17)] comprising:

at least 1st transmitting slave device (transmission device) communicating with both master device (reception information providing device) and 2nd receiving slave device (reception device) wherein 1st slave device and 2nd slave device can be communicated each other either directly [i.e., slave to slave communications but not according to Bluetooth 1.0 system: (Column 3, Line 12-22)] [Figure 2] or via master device [Figure 1];

each 1st transmitting slave device having:

a transmission device communication unit (Transceiver 50) [Figure 15] configured to transmit a communication request to the master device (the reception information providing device) to carry out communications with 2nd receiving slave devices (the reception devices) and

a 1st transmitting slave device's processor 58 (transmission device control unit) [Figure 15] configured to control the transmission device communication unit to transmit

application data (exchanged data: Column 3, Line 50) to at least one 2nd receiving slave device and to transmit (transmit to request) a reception establishing information of each transmission device (communication resource parameter such as frequency, modulation, protocol, data rate, etc.) [Column 3, Line 50-52 and Line 63-67] which is necessary for a reception device to receive the application data transmitted from each transmission device [Figure 13] [Column 5, Line 9-39] [Column 7, Line 19-46];

the reception information providing device (Master communication device) having: a reception information providing device communication unit (Transceiver acting as master) configured to carry out communications with each transmission device (a first slave of the plurality of communication devices) and the reception devices (the plurality of slaves communication devices); and a reception information providing device control unit (Processor 58) configured to control the reception information providing device communication unit to receive the reception establishing information (communication resource parameter such as frequency, modulation, protocol, data rate, etc.) of each transmission device transmitted from each transmission device (to receive acknowledgement of the reception establishing information from a first slave of the plurality of communication devices), and to transmit the reception establishing information of a specified transmission device to a prescribed reception device (to transmit the reception establishing information assigned to a first slave of the plurality of communication devices to a second slave of the plurality of communication devices) [Column 3, Line 26-30] [Figure 13] [Column 5, Line 9-39] [Column 7, Line 19-46]; and

each reception device having (a second slave of the plurality of communication

devices): a reception device communication unit (Transceiver) configured to carry out communications with each transmission device and the reception information providing device; and a reception device control unit (processor) configured to control the reception device communication unit to receive the reception establishing information of one transmission device (a first slave of the plurality of communication devices) transmitted from the reception information providing device (master communication device), and to receive the application data (data packet) transmitted from said one transmission device according to the reception establishing information of said one transmission device (according to the reception establishing information assigned to a first slave of the plurality of communication devices) [Figure 13] [Column 5, Line 9-39] [Column 7, Line 19-46].

Callaway discloses that the reception information providing device (Master communication device) directs and sets up the second communication source in order for the transmission device and reception device to communicate each other directly without connecting to master device according to Bluetooth 1.0 system as claimed in order to set up and control indefinite number of communicating slaves within a network [Column 3, Line 2-22] [Figure 2].

1.2 Regarding Claim 19, which is a method claim corresponding to Claim 1 is rejected for the same reasons as stated above because the claimed steps read on the corresponding means on Claim 1.

1.3 Claims 2 and 3 are rejected for the same reason as stated above in Claim 1 rejection. Memories are inherently implemented in communications devices to store instructions and data necessary to execute and establish communications. Therefore, claimed memories must have been inherently implemented in Bluetooth Master devices to facilitate amount of storage necessary to store reception establishing information for assisting slave devices as claimed.

1.4 Claim 4 is rejected for the same reason as stated above in Claim 1 rejection. Callaway discloses the acknowledgement step initiated by master communication device necessary for the two communications slave devices to acknowledge the parameters assigned by the master communication devices [Column 3, Line 56-67].

1.5 Claim 5 is rejected for the same reason as stated above in Claim 1 rejection because claimed method substantially read on the corresponding method of Claim 1. Callaway's method allows slaves devices to communicate directly with each other in parked modes i.e., not in active modes according to Bluetooth 1.0 specification as claimed.

1.6 Claims 6, 11 & 12 are rejected for the same reason as stated above in Claim 1 and Claim 5 rejections because claimed method substantially read on the corresponding method of Claims 1 & 5. Slave devices communicates each other

according to Bluetooth 1.0 specification when said devices are in active modes and Slave devices communicates each other in parked modes without connecting to Master devices according to Bluetooth 1.0 specification [See Figures and corresponding cited disclosures].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 7, 8, 9 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callaway (US006275500B1) in view of Haartsen (US006590928B1).

2.1 Regarding Claims 7 & 8, Callaway discloses that the reception establishing information that indicates (communication resource parameter such as frequency, modulation, protocol, data rate, etc.) as describes in Claim 1. Although Callaway teaches that all devices in the same Piconet are synchronized to the same hopping sequence (hopping pattern) and each piconet is identified by a different frequency hopping sequence [Column 1, Line 55-60], Callaway does not clearly disclose the

reception establishing information indicates the phase and clock of transmission device and Bluetooth device.

Haartsen clearly discloses the ad-hoc wireless network in which master and slave units establish communication by the address (Bluetooth address) of master unit, which determines the hopping sequence and the system clock in the master transceiver unit which determines the phase in the hopping sequence [Column 11, Line 31-47]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made that reception establishing information received by the reception device indicates a hopping pattern, Bluetooth device address, a phase and clock of transmission device as taught by Haarten to establish communication between transmission and reception device for improved synchronization.

2.2 Regarding Claim 9, Callaway discloses that the reception establishing information that indicates (communication resource parameter such as frequency, modulation, protocol, data rate, etc.) as describes in Claim 1. Although Callaway teaches that all devices in the same Piconet are synchronized to the same hopping sequence (hopping pattern) and each piconet is identified by a different frequency hopping sequence [Column 1, Line 55-60]. Callaway does not clearly disclose the reception information providing device communication unit transmits the reception establishing information of the specified transmission device that indicates a Bluetooth device address of the specified transmission device, a clock offset between the

specified transmission device and the reception information providing device, and a clock of the reception information providing device at a time of transmitting the reception establishing information to the prescribed reception device.

Haartsen discloses master communication means and slave communication means [Figure 12] [Column 20, Line 63-67] [Column 21, Line 1-18] to generate the hop frequencies at appreciate times (synchronized to the same hopping sequence) based on the master address and determination of the clock difference (clock offset) between the master clock and slave clock after connection has been established (link establish procedure known to one skilled in the in ad-hoc wireless network art in which master determine the slave Bluetooth device address). Haartsen further discloses bridge unit C participating in different piconets 603 and 605 acting as a bridge between the source unit A in the piconet 603 and destination unit B in piconet 605 [Figure 6b] [Column 14, Line 21-53]. Haartesen clearly teaches that bridge unit comprises two transceiver units, each establish connection with unit A and unit B separately and information is transferred back and forth between two transceiver with bridge unit C by inquiry process which determine the unit addresses of both piconet 603 and piconet 605, and control information. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify reception providing device in Callaway as taught by Haartsen so that the reception information providing device communication unit transmits the reception establishing information of the specified transmission device that indicates a Bluetooth device address of the specified transmission device, a clock offset (time difference) between the specified transmission device and the reception

information providing device, and a clock of the reception information providing device at a time of transmitting the reception establishing information to the prescribed reception device to establish connection between the transmission and reception device in different piconets.

2.3 Claim 10 is rejected for the same reason described above in Claim 9 since clock offset is the function of a clock of the specified transmission device at a time of transmitting the reception establishing information from the specified transmission device to the reception information providing device and a clock of the reception information providing device at a time of receiving the reception establishing information from the specified transmission device.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bluetooth Specification Version 1.0 B Dec. 1st 1999

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung T. Win whose telephone number is (571) 272-7549. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aung T. Win
Group Art Unit 2617
March 5, 2007

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